AMENDMENTS TO CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method of electrowinning copper comprising:

providing an ~~electrochemical~~ electrolytic cell comprising at least one flow-through anode and at least one cathode, wherein said cathode has an active surface area;

providing a flow of electrolyte through said ~~electrochemical~~ electrolytic cell, said electrolyte comprising copper and solubilized ferrous iron;

oxidizing at least a portion of said solubilized ferrous iron in said electrolyte at the at least one flow-through anode from ferrous iron to ferric iron;

removing at least a portion of said copper from said electrolyte at the at least one cathode; and

operating said ~~electrochemical~~ electrolytic cell at a cell voltage and at a current density, wherein said cell voltage is less than about 1.5 Volts and wherein said current density is greater than about 26 amperes per square foot of active cathode.

2. (Cancelled).

3. (Cancelled).

4. (Currently Amended) The method according to claim 1, wherein operating said ~~electrochemical~~ electrolytic cell at a cell voltage comprises operating said ~~electrochemical~~ electrolytic cell at a cell voltage of less than about 1.2 Volts.

5. (Currently Amended) The method according to claim 1, wherein operating said ~~electrochemical~~ electrolytic cell at a cell voltage comprises operating said ~~electrochemical~~ electrolytic cell at a cell voltage of less than about 1.0 Volts.

6. (Currently Amended) The method according to claim 1, wherein said step of providing a flow of electrolyte through said ~~electrochemical~~ electrolytic cell comprises providing an electrolyte flow rate of from about 0.1 to about 1.0 gallons per minute per square foot of active cathode.

7. (Currently Amended) The method according to claim 1, wherein said step of providing a flow of electrolyte through said ~~electrochemical~~ electrolytic cell comprises providing an electrolyte flow rate of from about 0.1 to about 0.25 gallons per minute per square foot of active cathode.

8. (Original) The method according to claim 1, wherein said step of oxidizing comprises oxidizing at least a portion of said solubilized ferrous iron in said electrolyte at a flow-through anode.

9. (Original) The method according to claim 8, wherein said step of oxidizing comprises oxidizing at least a portion of said solubilized ferrous iron in said electrolyte at an anode comprising titanium mesh having an electrochemically active coating.

10. (Original) The method according to claim 1, wherein said step of providing a flow of electrolyte comprises providing a flow of electrolyte having an iron concentration of from about 10 g/L to about 60 g/L.

11. (Original) The method according to claim 1, wherein said step of providing a flow of electrolyte comprises providing a flow of electrolyte having an iron concentration of from about 20 g/L to about 60 g/L.

12. (Original) The method according to claim 1, wherein said step of providing a flow of electrolyte further comprises maintaining the temperature of said electrolyte in the range of from about 110°F to about 180°F.

13. (Original) The method according to claim 1, wherein said step of providing a flow of electrolyte further comprises maintaining the temperature of said electrolyte above about 115°F.

14. (Original) The method according to claim 1, wherein said step of providing a flow of electrolyte further comprises maintaining the temperature of said electrolyte below about 150°F.

15. (Currently Amended) The method according to claim 1, further comprising:

removing at least a portion of said ferric iron from said ~~electrochemical~~ electrolytic cell in an electrolyte regeneration stream;

reducing at least a portion of said ferric iron in said electrolyte regeneration stream to ferrous iron to form a regenerated electrolyte stream; and

returning at least a portion of said regenerated electrolyte stream to said ~~electrochemical~~ electrolytic cell.

16. (Original) The method according to claim 15, wherein said step of reducing at least a portion of said ferric iron comprises contacting said ferric iron with a reducing agent in the presence of a catalyst.

17. (Original) The method according to claim 9, wherein said step of reducing at least a portion of said ferric iron comprises contacting said ferric iron with sulfur dioxide gas in the presence of a catalyst.

18. (Currently Amended) A process for electrowinning copper from a copper- and ferrous iron- containing electrolyte stream comprising providing an ~~electrochemical~~ electrolytic cell comprising at least one anode and at least one cathode, wherein ferrous iron is oxidized at the anode to form ferric iron and copper is plated at the cathode and wherein said cathode has an active surface area,

the improvement comprising providing at least one flow-through anode and effectively circulating said electrolyte within said ~~electrochemical~~ electrolytic cell, such that operation of said ~~electrochemical~~ electrolytic cell can be conducted at a cell voltage of less

than about 1.5 Volts and a current density ~~in excess~~ of about 26 to about 35 amperes per square foot of active cathode.

19. (Currently Amended) The process according to claim 18, wherein the improvement further comprises facilitating effective electrolyte circulation by providing a flow of electrolyte through said ~~electrochemical~~ electrolytic cell at a flow rate of from about 0.1 to about 0.25 gallons per minute per square foot of active cathode.

20. (Currently Amended) The process according to claim 18, wherein the improvement further comprises facilitating effective electrolyte circulation by providing a flow of electrolyte through said ~~electrochemical~~ electrolytic cell using an electrolyte flow manifold.

21. (Original) The process according to claim 18, the improvement further comprising injecting at least a portion of said electrolyte into said at least one flow-through anode.

22. (Cancelled).

23. (Currently Amended) The process according to claim 18, the improvement further comprising removing at least a portion of said ferric iron from said ~~electrochemical~~ electrolytic cell in an electrolyte regeneration stream;

reducing at least a portion of said ferric iron in said electrolyte regeneration stream to ferrous iron to form a regenerated electrolyte stream; and

returning at least a portion of said regenerated electrolyte stream to said ~~electrochemical~~ electrolytic cell.

24. (Original) The process according to claim 23, wherein said step of reducing at least a portion of said ferric iron comprises contacting said ferric iron with a reducing agent in the presence of a catalyst.

25. (Original) The process according to claim 23, wherein said step of reducing at least a portion of said ferric iron comprises contacting said ferric iron with sulfur dioxide gas in the presence of a catalyst.